

DEPARTMENT OF WATER AND POWER
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April 25, 1983

Mr. James H. Anthony
Project Director
Intermountain Power Project
931 General Office Building

Conclusions and Recommendations Concerning the
Utah Air Conservation Committee (UACC)
Meeting on April 15, 1983

This is to summarize issues regarding the Intermountain Power Project (IPP) air quality permit discussed at the regularly scheduled meeting of the UACC held on April 15, 1983, and to provide conclusions and recommendations concerning this meeting. Attached is a detailed discussion of this meeting.

Based upon attendance at UACC meetings and conversations with Mr. Brent C. Bradford (Director of the Bureau of Air Quality of the Utah Department of Health (DOH)), Mr. Fred Nelson (legal counsel to the UACC) and Mr. James Holtkamp (legal counsel to IPP):

- 1) The Utah DOH continues to misinterpret IPP air quality permit conditions and Utah Air Quality Regulations regarding the necessity for major modification and Best Available Control Technology (BACT) review. Despite letters of clarification from the IPP and contrary to the recommendation of legal counsel to the DOH, Mr. Bradford's position on behalf of DOH remains that major modification review is required for IPP.
- 2) Mr. Bradford's observations may have incorrectly led the UACC to think that the only issue to be resolved is that of current BACT for emission control. It appears that the UACC has assumed that whatever control technologies they determine to be BACT will automatically be imposed upon the IPP without consideration being given to existing air quality permit conditions for the IPP.
- 3) Legal counsel to the UACC and the DOH apparently agrees with IPP's position that major modification and BACT review is not required for proposed design changes and has expressed this opinion to Mr. Bradford. However, Mr. Bradford continues to oppose this position and has not presented this viewpoint before the UACC.

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- 4) It is recommended that DWP representatives meet as soon as possible with Mr. Bradford, DOH legal counsel, and IPP legal counsel to discuss in detail the issue of major modification and BACT review requirements before the next meeting of the UACC scheduled for May 23, 1983.
- 5) It is recommended that IPP legal counsel insist on making a presentation to the UACC at their next meeting concerning IPP's legal position on major modification and BACT review requirements, should this position not be adequately expressed by Mr. Bradford to the UACC.
- 6) It is recommended that copies of the IPP letter to Mr. Bradford dated April 13, 1983 be sent to members of the UACC.

If you have any questions or if further information is required, please contact Mr. Stephen A. Clark on extension 3502.

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Attachment

cc: w/Attachment
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IPP File
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UACC Meeting - April 15, 1983

In response to a resolution adopted at the previous meeting of the UACC, Mr. David Kopta of the Utah DOH made a short presentation to the UACC on the status of NOx control technology for electric utility boilers. Both combustion modification techniques and flue gas treatment techniques, including selective catalytic reduction (SCR), were discussed in very simplified terms. Attached is a list of potential NOx control technologies and their associated costs which was discussed by Mr. Kopta and distributed to members of the UACC. The following points were emphasized regarding NOx control technology:

1. Combustion modifications can result in a 12- to 40-percent reduction in NOx emissions depending upon the techniques utilized.
2. Currently, combustion modifications are the only techniques used commercially for NOx emission control in the United States.
3. Combustion modifications used to control NOx emissions are relatively inexpensive.
4. Experience with SCR systems used to control NOx emissions from coal-fired boilers in Japan has shown that a minimum of 80-percent reduction in NOx emissions can be achieved. The cost increases exponentially for emission reductions above 80 percent.
5. SCR systems can be used in conjunction with combustion modifications to achieve NOx emission reductions in excess of 80 percent.

Mr. Kopta made no reference to IPP during his presentation and did not draw any conclusion regarding SCR technology as being BACT for NOx emissions.

In response to questions raised by members of the UACC, Mr. Bradford made several comments concerning the IPP.

1. The letter received by the DOH from IPP does constitute a Notice of Intent (NOI) for proposed design changes at the IPP; however, information provided in this letter may not be complete.
2. IPP should not begin on-site erection of air pollution control equipment until approval of equipment design changes has been granted by the DOH.

3. Any concerns over air pollution control equipment to be utilized at IPP will be resolved in the public comment process.
4. It is apparent that a petition will likely be filed with the UACC by either environmental groups or the IPP depending upon the results of the BACT review.

A brief presentation was also made by Mr. Sherman Young of the law firm of Ivie and Young of Provo, Utah, who apparently represents concerns of several environmental groups. Mr. Young emphasized that the cost of SCR control technology should be viewed from the perspective of the cost to the ratepayer and compared to the benefits of good air quality. He also alluded to the fact that the tourist industry, which is an important industry in Utah, would be significantly damaged by a degradation in air quality caused by inadequate control of emissions from power plants.

Copies of the IPP letter to Mr. Bradford dated April 14, 1983 concerning information on emission control technologies were distributed to members of the UACC. Subsequent discussion by UACC members revealed the following concerns:

1. The use of SCR systems for control of NOx emissions is a national issue requiring a national debate.
2. Although the cost of SCR systems can be determined, the benefits cannot be accurately established.
3. The effects of increased NOx emissions at IPP due to inadequate NOx control equipment will be cumulative over the 30-year life of the plant.

A resolution was passed by the UACC to table any further discussion of air pollution control technology or the IPP until the next meeting of the UACC scheduled for May 23, 1983. The committee felt that no conclusions should be drawn until a more comprehensive review of the IPP letter and enclosures could be made by all members.

Attachment

LIST OF POTENTIAL NO_x CONTROL TECHNIQUES

I. Combustion Modification

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|--------------------------------|-----------|---|
| 1. Low Excess Air | \$.64/Kw | All new U.S. boilers use one or more of these techniques. |
| 2. Staged Combustion | \$.75/Kw | |
| 3. Low NO _x Burners | \$2.50/Kw | |
| 4. Boiler Geometry | | |
| 5. Reduced Air Preheat | | |
| 6. Flue Gas Recirculation | \$5.80/Kw | |
| 7. Boiler Derating | | |

II. Flue Gas Treatment

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| 1. Selective Catalytic Reduction | \$47/Kw | Eight large Japanese coal boilers are presently equipped with SCR. |
| 2. Thermal Denox
(Ammonia Injection) | | Used on some oil and gas boilers in California. So far no application to coal boilers. |
| 3. Various Wet and Dry Absorption Techniques | | All are still in experimental stages. |